

### REMARKS

This application has been reviewed in light of the Office Action dated June 13, 2005. Claims 1-37 are presented for examination. Claims 1, 11, 19, and 32-37 have been amended to define more clearly what Applicants regard as their invention, and Claim 31 has been amended to correct a grammatical error. No change in scope is either intended or believed effected by at least the latter change. Claims 1, 11, and 19 are in independent form. Favorable reconsideration is requested.

Claims 1-3, 7, 8, 10, 11, 15, 16, 18, 19, 22, 27, 28 and 30-33 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,066,883 (*Yoshioka et al.*). Claims 4, 6, 12-14, 17, 20, 21 and 23-26 have been rejected under 35 U.S.C. 103(a) as being unpatentable over *Yoshioka et al.* Claims 29 and 34 have been rejected under 35 U.S.C. 103(a) as being unpatentable over *Yoshioka et al.* in view of U.S. Patent 6,420,825 (*Shinjo et al.*), Claims 35-37 have been rejected under 35 U.S.C. 103(a) as being unpatentable over *Shinjo et al.* in view of *Yoshioka et al.*

Independent Claim 1 is directed to a substrate structure being a precursor to an electron source, comprising a substrate and an insulating material film provided thereon. The insulating material film includes a metallic oxide, has a vacancy, and has a surface on which a member for electron emission of the electron source is to be disposed.

Independent Claim 11 recites, in part, an insulating material film including a plurality of metallic oxide particles, and having a vacancy among the plurality of metallic

oxide particles. The film has a surface on which a member for electron emission of the electron source is to be disposed.

Independent Claim 19 recites, in part, an insulating material film provided on a metallic oxide particle layer having a vacancy, wherein the film has a surface on which a member for electron emission of the electron source is to be disposed.

For the following reasons, it is respectfully submitted that Yoshioka et al. does not disclose or suggest the above-described insulating material film according to Claims 1, 11, and 19.

In the present Office Action, Yoshioka et al. is cited for allegedly disclosing that "an electron source forming substrate [4] comprising an insulating material film [11] has a surface on which an electron-emitting device [electrodes 1 and 2] of the electronic source is to be disposed, wherein said insulating material film contains a plurality of metallic oxide particles [9] and vacancy [portions around the particles see figure 8-10] are provided among said plurality of metallic oxide particles."

The teachings of Yoshioka et al. were described in an earlier-filed Amendment. As described previously, for example, Yoshioka et al. relates to an electron-emitting device which includes a laminate having an insulating layer held between a pair of electrodes opposing each other. An electron-emitting region insulated from the electrodes is formed at a side end surface of the insulating layer formed at a part at which the electrodes oppose each other, and electrons are emitted from the electron-emitting region by applying a voltage between the electrodes.

Yoshioka et al. refers to a discontinuous electron-emitting region 10 comprising fine particles 9, and electrons are emitted from the electron-emitting region (col. 7, lines 14-15 and 23-24), and a film 11 for electron emission, containing particle 9 (Figs. 8 and 9). A surface on which the film 11 is disposed is a surface of a substrate 4. However, nothing in Yoshioka et al. would teach or suggest an insulating material film including a metallic oxide and having a vacancy, the film having a surface on which a member for electron emission is to be disposed, as recited in Claim 1, an insulating material film including a plurality of metallic oxide particles and having a vacancy among them, wherein that film has a surface on which a member for electron emission is to be disposed, as recited in Claim 11, and an insulating material film provided on a metallic oxide particle layer having the vacancy, wherein the film has a surface on which a member for electron emission is to be disposed, as recited in Claim 19. Indeed, in Yoshioka et al., no member for electron emission needs to be disposed on the surface of the film 11, because electrons already are capable of being emitted from the region 10 of the layer 11.

Accordingly, for these reasons, Claims 1, 11, and 19 are each believed to be clearly patentable over Yoshioka et al.

Shinjo et al. and the other art of record do not, in Applicants' opinion, teach or suggest anything which would remedy the above-noted deficiencies of Yoshioka et al. Accordingly, Claims 1, 11, and 19 are believed patentable over the art of record.

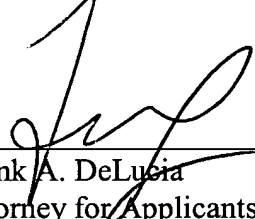
The other claims in this application are each dependent from Claims 1, 11, or 19 discussed above and are therefore also believed patentable for the same reasons as are

those corresponding independent claims. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of each dependent claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and the allowance of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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